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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,725	09/09/2003	Ed H. Frank	14180US02	2800

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EXAMINER	
THIER, MICHAEL	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/658,725	FRANK ET AL.	
	Examiner	Art Unit	
	MICHAEL T. THIER	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/22/2010 have been fully considered but they are not persuasive.

Applicant argues, "...Choksi relates only to wireless cell networks and does not relate to a hybrid wired/wireless LAN".

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The claims were rejected using the combination of references where Sundar clearly teaches the idea of the hybrid wired/wireless LAN, and therefore Choksi need not specifically be related to a hybrid wired/wireless LAN.

Applicant further argues, Choksi does not disclose or suggest receiving by an access point or a switch, a messaging protocol message for establishing a communication session within the hybrid wired/wireless LAN.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The claims were rejected using the combination of references, where Choksi was explained to teach the idea of receiving a first message protocol message, which

can clearly be interpreted as the call admission request. A call admission request that is received is a first message protocol message for establishing a communication session. The examiner then asserted that Dokko teaches the idea of a data call connection request received from a call processing unit in the mobile switching system, which reads on the claimed first messaging protocol message for establishing a communication session received from at least one of a first access point and a first switch. Although, Dokko does not teach this communication session is within a hybrid wired/wireless local area network, this idea was clearly shown in the Sundar reference in the rejection and therefore, the combination of references clearly teaches the argued limitation and would have been obvious to one of ordinary skill in the art at the time of invention.

Applicant further argues that Dokko's request is not used for the purposes of establishing a communication session within a hybrid wired/wireless LAN, and that it is not received from a first access point or a first switch, but from a mobile subscriber.

In response to applicant's argument, the examiner respectfully disagrees. The examiner notes that although Dokko may not teach that the request is not for establishing a communication session within a hybrid wired/wireless LAN, it is for establishing a communication session, and as shown in the rejection, Sundar teaches the idea of communications in a hybrid wired/wireless LAN. Therefore, the combination would allow for a request for communication in a hybrid wired/wireless LAN. Further, Dokko clearly teaches the idea of receiving from a first access point or switch, a first messaging protocol message for establishing a communication session when he

explains that a call connection request is received from the call processing unit 11 in column 4 lines 29-30 (i.e. which the call processing unit 11 is a part of the mobile switching system, and thus a connection request received from a first switch or access point). The examiner notes that the message may first be initiated at a mobile subscriber, as argued by applicant, however, it is clear from column 4 lines 28-33 that a connection request is received from a first switch since he clearly states "Upon receiving the data call connection request from the call processing unit 11..." (i.e. where the call processing unit 11 is a part of the mobile switching system), and thus can be read on the claims as worded.

Applicant further argues, "...Sundar fails to disclose or suggest that an access point is notified of allocated bandwidth using a messaging protocol message..."

In response to applicant's argument, the examiner would like to note that it was previously shown in the rejection that Choksi discloses the allocating bandwidth to accommodate said communication session and allowance of call admission requests, but failed to specifically disclose the idea of notifying the first access point of the connection. Sundar was simply combined to show the obviousness of notifying a first access point of a connection in a hybrid wired/wireless LAN. Sundar discloses that during a call connection setup, initiated by, for example, a handoff scenario, the serving BSC informs the desired BSC of the desire to handoff, and once the operation is the complete, acknowledgements are returned to the initiating parties. Therefore, the examiner understands the acknowledgement that would be returned from the new BSC

to the serving BSC to read on the idea of notifying the first access point of a communication session. He does not specifically disclose the idea of notifying of the allocated bandwidth, however, Dokko teaches the idea of determining available bandwidth, and thus one of ordinary skill in the art at the time of invention would have seen it obvious to combine the teachings of the references to arrive at the idea of notifying of the allocated bandwidth (i.e. thus notifying of a new communication session) in order to provide users with necessary bandwidth to complete their communications and control a network so that it's bandwidth capabilities are not exceeded.

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Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choksi (US 6978144) in view of Sundar et al. (US 2003/0134650) in further view of Dokko (US 7089016).

Regarding claims 1, 9, and 17. Choksi discloses a method, system, and machine readable storage for providing bandwidth management in a hybrid wired/wireless local area network (Abstract, column 4 lines 18-26), the method comprising:

receiving from at least one of a first access point and a first switch, at least a first

messaging protocol message (call admission request is submitted- Column 7, Lines 5-15 and 33-41);

responsive to said first messaging protocol message, determining an available communication bandwidth for at least a portion of the hybrid wired/wireless local area network (current bandwidth usage plus the requested bandwidth must not exceed a threshold - Column 7, Lines 61-67; Column 8, Lines 1-5; radio link can be an 802.11 based WLAN Column 3, Line 35); and

allocating bandwidth to accommodate said communication session (read as the request is allowed- Column 8, lines 1-5).

However, Choksi discloses the allocation of resources and allowance of call admission requests, but fails to specifically disclose the notification to the first access point of the communication system to commence the connection.

Sundar discloses a call connection management system for hybrid wired/wireless (WWAN and WLAN) networks which performs call setup functions such as channel assignment based upon requests from users. During the call connection setup, initiated by, for example, a handoff scenario, the serving BSC informs the desired BSC of the desire to handoff, and once the operation is the complete, acknowledgements are returned to the initiating parties (Figure 12 - Page 6, Paragraphs 0074-0075).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Sundar with the teachings as in Choksi in order to provide users with necessary bandwidth to complete their communications and control a network so that it's bandwidth capabilities are not

exceeded.

However, Choksi and Sundar do not specifically disclose that the first messaging protocol message is for establishing a communication session.

Dokko teaches a channel allocation system and method for radio data calls having different bandwidths (title and abstract). He teaches in column 4 lines 18-21 and 28-33 that a call set up request is received from the call processing unit 11 (which is a part of the mobile switching system 10 as shown in figure 1), and after the data call connection request is received, the system determines the required/allocated bandwidth based on the service option of the corresponding data call. Therefore, the data call connection request received from the call processing unit in the mobile switching system clearly reads on the claimed first messaging protocol message for establishing a communication session received from at least one of a first access point and a first switch.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Dokko with the teachings as in the combination of Sundar and Choksi. The motivation for doing so would have been to create a channel allocation method and system that prevents traffic delay and effectively utilizes channel resources by allocating a channel according to bandwidth required by each call. (Dokko column 2 line 65 to column 3 lines 2)

Regarding claims 2, 10, and 18. Choksi as modified by Sundar and Dokko further discloses receiving said at least a first messaging protocol message by at least one of a second switch and a second access point (Sundar et al. - the serving WLAN

MSC informs the desired WWAN BSC of the handoff requests - Figure 12, Steps 1204-1210 - Page 6, Paragraph 0074).

Regarding claims 3, 11, and 19. Choksi as modified by Sundar and Dokko further discloses requesting bandwidth usage information from at least one of said first access point and said first switch using said at least a first messaging protocol (Choksi - call admission request are single bandwidth requests - Column 7, Lines 42-48).

Regarding claims 4, 12, and 20. Choksi as modified by Sundar and Dokko further discloses de-allocating said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session (Sundar et al. - once the mobile has handed off to the WWAN, the WWAN notifies the WLAN MSC that it may clear the resources previously allocated for the mobile - Figure 12, steps 1226-1228 - Page 6, Paragraph 0074).

Regarding claims 5, 13, and 21. Choksi as modified by Sundar and Dokko further discloses sending said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point (Sundar et al. - once the mobile has handed off to the WWAN, the WWAN notifies the WLAN MSC that it may clear the resources previously allocated for the mobile - Figure 12, steps 1226-1228- Page 6, Paragraph 0074).

Regarding claims 6, 14, and 22. Choksi as modified by Sundar and Dokko further discloses receiving bandwidth information from at least one of a quality of service management process, a load balancing management process, a session control process, and a network management process using at least a fourth messaging

protocol message (Choksi – QoS policy is retrieved during the bandwidth allocation request- Column 6, Lines 60-67 and Column 7, Lines 5-15).

Regarding claims 7, 15, and 23. Choksi as modified by Sundar and Dokko further discloses requesting said bandwidth information from said quality of service management process, said load balancing management process, said session control process, and said network management process using a fifth messaging protocol message (Choksi – QoS policy is retrieved during the bandwidth allocation request - Column 6, Lines 60-67 and Column 7, Lines 5-15).

Regarding claims 8, 16, and 24. Choksi as modified by Sundar and Dokko further discloses that said first, second, third, fourth, and fifth messaging protocol messages each comprise at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message, and a device discovery message (Choksi - the messages request the status of the access points, hence gaining their status and configuration - Column 7, Lines 42-47; Sundar et al. - device discovery is used to determine available networks - Page 4, Paragraphs 0055-005 7; Sundar et al. - BSCs determine statuses of access points to perform call connections- Page 6, Paragraph 0074).

Regarding claim 25. Choksi as modified by Sundar and Dokko further discloses that at least one controller is a bandwidth management controller, a quality of service controller, a load balancing controller, a session controller, and a network management controller (Choksi- Column 4, Lines 18-46).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. THIER whose telephone number is (571)272-2832. The examiner can normally be reached on Monday thru Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2617

/MICHAEL T THIER/
Examiner, Art Unit 2617
4/26/2010